

## Objectives of the measure

- **At measure level:**
  - Improve PT accessibility at low density areas.
  - Increase PT ridership.
- **Contributing to city level objectives of:**
  - Improve accessibility to/from metro stations.
  - Improve user satisfaction.

## Description of the measure

- **Situation before:**

Territories which are located at the peri-urban area of Thessaloniki currently are not connected well to the city PT system. Travelers of these areas move to Thessaloniki by having to combine different bus lines with low service frequency. The need of improving social inclusion in transport system proposes the improvement of transport networks and services in peri-urban areas of the city. At the moment a DRT service does not exist, however, in the past a DRT was tested for a short period at a peri-urban area of Thessaloniki.

- **General description:**

This measure aims to increase the accessibility to PT through the aid of a DRT service. This measure aims at facilitating the access to PT nodes in a low demand area of the city. (New service)

Data from previous similar services that have run successfully in the city of Thessaloniki, within the framework of pilot programs, will be extracted and used as historical data. Additionally, an updated survey in the areas of interest will explore traveling characteristics to optimally design the proposed measure in terms of scheduling, routing, frequency, service options to users. The proposed service will be developed as a physical service. Travellers will be able to book their trips in advance and pay through a dedicated platform/application.

- **Measure outputs:**

This measure will deliver:

- A physical service of DRT.
- A supporting application for trip booking.

- **Supporting activities:**

The success of the developed measure depends on the definition of an appropriate area to be served. Local project partners will define in detail the settlements of Panorama area to be included in the measure.

- **Interaction with other city measures: UPPER and non-UPPER measures**

This measure is not linked to another measure in Thessaloniki

## Target groups and/or geographical impact areas

- **Target groups:** Citizens, travellers, PT users, TSP, PT authorities
- **Geographic implementation area:** Panorama, which is a peri-urban area in the eastern part of the city.
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## Stakeholders

The following stakeholders will be required for the implementation of this measure.

- **CERTH:** Definition of implementation area, traveller survey.
- **TheTA:** Definition of implementation area, data provision, PT schedules in the area.

## U-tools support

The implementation of this measure will be actively supported by one tool from the UPPER toolkit:

- **U-NEED:** Will be used together with CERTH tools to optimize DRT service. Data analytics and big data visualisation tool will help to understand the multimodal transport demand and how people move around the city, so as to adapt DRT offer accordingly.

## Link to other UPPER measures

This measure is similar to UPPER measures implemented in other cities, especially:

- **VAL\_06:** To improve the Public Transport offer in peri-urban areas
- **OSL\_05:** Develop and implement segmented Demand Responsive Transport (DRT) solutions
- **MAN\_06:** Defining concepts and test instruments to improve mobility in peri-urban areas for different user groups
- **HAN\_02:** Sustainable transport chains

## Process of implementation of the measure

Stages	Description	Intermediate milestones
<b>Design</b>	Data collection	<ul style="list-style-type: none"><li>- OD for travellers</li><li>- Existing PT and feeder routes</li><li>- GTFS data</li><li>- Trip purpose and mode split</li></ul>
<b>Preparation</b>	Scenarios simulation	<ul style="list-style-type: none"><li>- Analysis of data</li><li>- Definition of optimization criteria</li><li>- Vehicle to be used</li><li>- Development/update of application</li></ul>
<b>Implementation</b>	Formation physical service	<ul style="list-style-type: none"><li>- Identification of optimal of DRT service</li><li>- Physical service in operation</li></ul>

## Sub-measures and preliminary indicators

Measure	Sub-measure (if applicable)	Impact indicators
TES_07	n/a	<ul style="list-style-type: none"><li>- Trip requests per day</li><li>- Fulfilled trip requests</li><li>- User satisfaction</li><li>- Travel time to destination</li></ul>